

1 NET LIST

The listing on the following pages provides "Net List" information for the connectors on both sides of the comparator backplane board. The example in Figure 1 describes how to interpret the information.

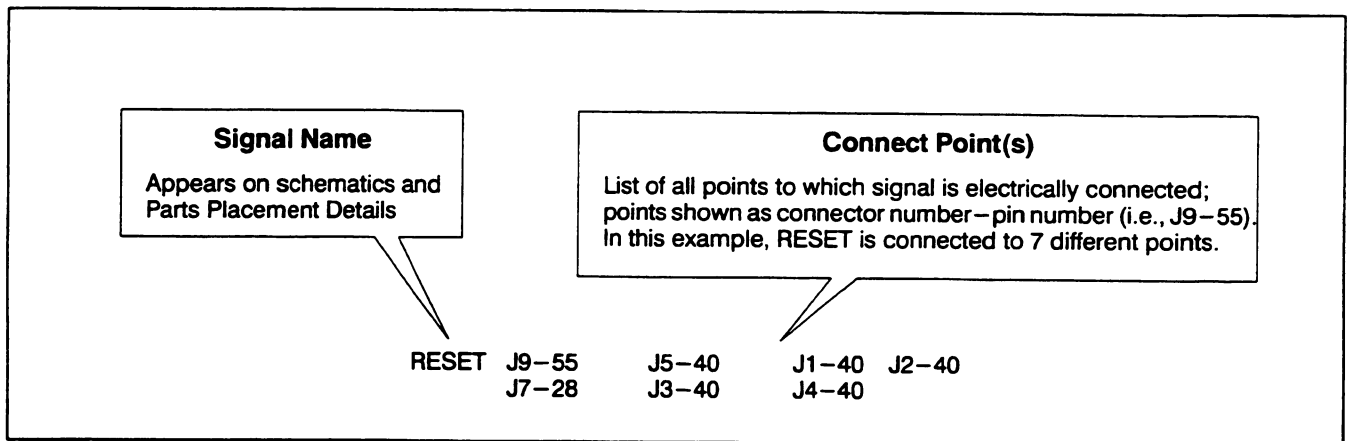


Figure 1. Interpreting Net List Information Example

extspare#6_A	J41-10 J40-10 J42-10	HDLCBUSY	J3-42 J4-42 J2-42 J1-42
extspare#10_A	J41-14 J40-14 J42-14		J5-42 J41-42 J40-42 J42-42
extspare#4_A	J41-8 J40-8 J42-8		J7-30
extspare#8_A	J41-12 J40-12 J42-12	13.8V_A	J41-22 J41-23 J41-24 J41-25
extspare#12_A	J41-16 J40-16 J42-16		J41-26 J40-22 J40-23 J40-24
RESET	J3-40 J4-40 J2-40 J1-40		J40-25 J40-26 J42-22 J42-23
	J5-40 J41-40 J40-40 J42-40	13.8V_A	J42-24 J42-25 J42-26
	J7-28 J10-63	GND	J39-6 J39-7 J39-10 J39-11
A3	J3-60 J4-60 J2-60 J1-60		J14-9 J14-16 J14-17 J14-18
	J5-60 J41-60 J40-60 J42-60	GND	J14-19 J14-20
	J7-46 J10-73		J31-1 J31-10 J3-1 J3-2
SPARE#2	J3-48 J4-48 J2-48 J1-48		J3-3 J3-4 J3-18 J3-19
	J5-48 J41-48 J40-48 J42-48		J3-20 J3-21 J3-35 J3-36
	J7-36 J10-65	GND	J3-57
A4	J3-58 J4-58 J2-58 J1-58		J3-63 J3-64 J3-67 J3-68
	J5-58 J41-58 J40-58 J42-58		J3-71 J3-72 J3-73 J3-79
	J7-45 J10-71		J3-80 J4-1 J4-2 J4-3
A2	J3-62 J4-62 J2-62 J1-62	GND	J4-4 J4-18 J4-19
	J5-62 J41-62 J40-62 J42-62		J4-20 J4-21 J4-35 J4-36
	J7-47 J10-75		J4-57 J4-61 J4-63 J4-64
5V_A	J41-27 J41-28 J41-29 J41-30	GND	J4-67 J4-68 J4-71 J4-72
	J41-31 J41-32 J41-33 J41-34		J4-73 J4-79 J4-80
	J40-27 J40-28 J40-29 J40-30		J2-1 J2-2 J2-3 J2-4
	J40-31 J40-32 J40-33		J2-18 J2-19 J2-20 J2-21
5V_A	J40-34 J42-27 J42-28 J42-29	GND	J2-35 J2-36 J2-59 J2-61
	J42-30 J42-31 J42-32 J42-33		J2-63 J2-64 J2-67
	J42-34 J39-20 J39-21 J39-22		J2-68 J2-71 J2-72 J2-73
	J39-23 J39-24 J39-25		J2-79 J2-80 J1-1 J1-2
5V_A	J39-26 J39-27	GND	J1-3 J1-4 J1-18 J1-19
RxAudio	J14-22 J3-17 J4-17 J2-17		J1-20 J1-21 J1-35
	J1-17 J5-17 J8-68 J41-17	GND	J1-36 J1-59 J1-63 J1-64
	J40-17 J42-17		J1-67 J1-68 J1-71 J1-72
A1(CS2)	J3-54 J4-54 J2-54 J1-54		J1-73 J1-79 J1-80 J5-1
	J5-54 J41-54 J40-54 J42-54		J5-2 J5-3 J5-4
	J7-42 J10-68	GND	J5-18 J5-19 J5-20 J5-21
TDMCLOCK	J3-46 J4-46 J2-46 J1-46		J5-35 J5-36 J5-57 J5-59
	J5-46 J41-46 J40-46 J42-46		J5-63 J5-64 J5-67 J5-68
	J7-34	GND	J5-71 J5-72 J5-73
SPARE#4	J3-50 J4-50 J2-50 J1-50		J5-79 J5-80 J6-38 J6-53
	J5-50 J41-50 J40-50 J42-50		J6-79 J6-80 J8-5 J8-6
	J7-38		J8-13 J8-14 J8-26 J8-27
SPARE#6	J3-52 J4-52 J2-52 J1-52	GND	J8-28 J8-29 J8-30
	J5-52 J41-52 J40-52 J42-52		J8-31 J8-38 J8-45 J8-46
	J7-40		J8-47 J8-48 J8-55 J8-65
SPARE#1	J3-47 J4-47 J2-47 J1-47		J8-66 J8-70 J8-71 J8-72
	J5-47 J41-47 J40-47 J42-47	GND	J8-73 J8-75 J8-77
	J7-35 J10-64		J8-79 J18-1 J41-1 J41-2
SPARE#3	J3-49 J4-49 J2-49 J1-49		J41-3 J41-4 J41-18 J41-19
	J5-49 J41-49 J40-49 J42-49		J41-20 J41-21 J41-35 J41-36
	J7-37 J10-66	GND	J41-55 J41-57 J41-61
A0(CS1)	J3-53 J4-53 J2-53 J1-53		J41-63 J41-64 J41-67 J41-68
	J5-53 J41-53 J40-53 J42-53		J41-71 J41-72 J41-73 J41-79
	J7-41 J10-67		J41-80 J40-1 J40-2 J40-3
TDMFRAMESYNC	J3-44 J4-44 J2-44	GND	J40-4 J40-18 J40-19
	J1-44 J5-44 J41-44 J40-44		J40-20 J40-21 J40-35 J40-36
	J42-44 J7-32		J40-55 J40-57 J40-63 J40-64
		GND	J40-67 J40-68 J40-71 J40-72
			J40-73 J40-79 J40-80
			J42-1 J42-2 J42-3 J42-4
			J42-18 J42-19 J42-20 J42-21
			J42-35 J42-36 J42-55 J42-57
			J42-59 J42-63 J42-64

GND	J42-67	J42-68	J42-71	J42-72	WFI+	J8-7	J18-2	J18-6	J19-2
	J42-73	J42-79	J42-80	J15-1		J19-6			
	J15-7	J20-5	J21-2	J21-3	DLAN2+	J8-11	J18-4	J18-8	
	J21-4	J21-5	J30-2		RingIndicator	J8-49	J20-9		
GND	J30-3	J30-4	J30-5	J17-7	TxD1	J8-51	J20-3		
	J17-32	J23-1	J23-3	J19-1	RTS1	J8-53	J20-7		
	RN2-1	RN2-5	RN2-9	J24-1	Async+	J8-57	J20-4		
	J24-3	RN1-1	RN1-5		SPICLK	J3-39	J4-39	J2-39	J1-39
GND	RN1-9	J7-1	J7-2	J7-3		J5-39	J41-39	J40-39	J42-39
	J7-4	J7-23	J7-24	J7-51		J7-27	J10-62		
	J7-52	J7-53	J7-54	J7-57	SPIMISO	J3-37	J4-37	J2-37	J1-37
	J7-58	J7-61	J7-62			J5-37	J41-37	J40-37	J42-37
GND	J7-65	J7-66	J7-72	J7-73		J7-25	J10-60		
	J7-79	J7-80	J39-1	J39-2	AUXCarrier	J14-14	J8-61		
	J39-3	J39-12	J39-13	J39-14	SeizeRelseGCC	J14-4	J8-17		
	J39-15	J39-16	J39-17		RxMute(GCC)	J14-3	J8-19		
GND	J39-18	J39-19	J39-28	J39-29	DataPTT(GCC)	J14-2	J8-21		
	J39-30	J39-31	J39-33	J39-34	DataTx(GCC)	J14-1	J8-23		
	J39-35	J39-42	J39-43	J39-44	RXPLDET	J14-15	J8-25		
	J39-45	J39-46	J39-47		TXData-	J14-21	J8-69		
GND	J39-48	J39-49	J39-50	J39-63	TSTATRXCarir	J14-12	J8-59		
	J39-64	J39-65	J39-73	J39-74	TXData+TXAdio	J14-13	J8-67		
	J39-75	J39-76	J39-77	J39-78	TxD3	J8-33	J15-2		
	J10-1	J10-2	J10-3		RTS3	J8-35	J15-4		
GND	J10-32	J10-33	J10-34	J10-35	DCD3	J8-39	J15-8		
	J10-36	J10-37	J10-38	J10-39	TCLK3	J8-41	J15-15		
	J10-40	J10-41	J10-42	J10-43	DTR3	J8-43	J15-20		
	J10-44	J10-45	J10-46		extspare#9	J32-4	J3-13	J4-13	J2-13
GND	J10-47	J10-48	J10-49	J10-50		J1-13	J5-13		
	J10-51	J10-52	J10-53	J10-74	extspare#11	J32-6	J3-15	J4-15	J2-15
	J10-76	J10-77	J10-78	T331-1		J1-15	J5-15		
BATTERYTEMP	J24-2	J10-59			PL-In	J6-27	J17-35		
28V	J10-4	J10-5	J10-6	J10-7	AuxOut2RxCdDt	J6-29	J17-37		
	J10-8	J10-9	J10-10	J10-11	AuxOut4	J6-31	J17-39		
	J10-12	J10-13	J10-14	J10-15	AuxOut6	J6-33	J17-41		
AuxIn10-opto+	J6-49	J17-23			TXWBANDAUDIO	J3-69	J4-69	J2-69	J1-69
AuxOut10-Rla+	J6-51	J17-21				J5-69	J41-69	J40-69	J42-69
TxPLInhbtGCC	J14-5	J8-15				J7-63			
ODC1	J2-75	J7-75			RX16.8MHZREF	J3-65	J4-65	J2-65	J1-65
SBI2	J4-76	J7-69				J5-65	J7-55		
extspare#1	J32-5	J3-5	J4-5	J2-5	AuxOut8-Rely+	J6-57	J17-19		
	J1-5	J5-5			AuxIn7	J6-59	J17-17		
extspare#5	J32-1	J3-9	J4-9	J2-9	AuxIn5	J6-63	J17-15		
	J1-9	J5-9			AuxIn3EtTxCdt	J6-65	J17-13		
extspare#7	J32-2	J3-11	J4-11	J2-11	AuxIn9-opto-	J6-39	J17-47		
	J1-11	J5-11			AuxOut7-Rely-	J6-35	J17-43		
extspare#15	J32-10	J6-71			AuxOut9-Rely-	J6-37	J17-45		
extspare#13	J32-8	J6-69			DATA1	J2-77	J7-77		
DATA2	J4-77	J7-71			RSTATPtchInh	J14-25	J8-63		
AGC2***	J4-74	J7-67			DSR3	J8-37	J15-6		
DLAN1+	J8-9	J19-4	J19-8		extspare#1_A	J41-5	J40-5	J42-5	
extspare#3	J32-3	J3-7	J4-7	J2-7	extspare#3_A	J41-7	J40-7	J42-7	
	J1-7	J5-7			extspare#5_A	J41-9	J40-9	J42-9	
LINE4+	J6-19	J17-4			extspare#9_A	J41-13	J40-13	J42-13	
LINE3+	J6-13	J17-3			extspare#7_A	J41-11	J40-11	J42-11	
LINE2+	J6-7	J17-2							
LINE1+	J6-1	J17-1							

extspare#11_A	J41-15	J40-15	J42-15		HDLCCLK	J3-43	J4-43	J2-43	J1-43
						J5-43	J41-43	J40-43	J42-43
TDMDATA	J3-45	J4-45	J2-45	J1-45		J7-31			
	J5-45	J41-45	J40-45	J42-45	HDLCDATA	J3-41	J4-41	J2-41	J1-41
	J7-33					J5-41	J41-41	J40-41	J42-41
						J7-29			
SPARE#5	J3-51	J4-51	J2-51	J1-51	AuxIn11-opto-	J6-41	J17-49		
	J5-51	J41-51	J40-51	J42-51	AuxIn12-opto+	J6-43	J17-25		
	J7-39								

2 CONNECTOR PINOUT INFORMATION

Figure 2 shows the backplane board viewed from the rear with all connectors used for the comparator labeled. The tables on the facing page provide pinout information for each corresponding connector.

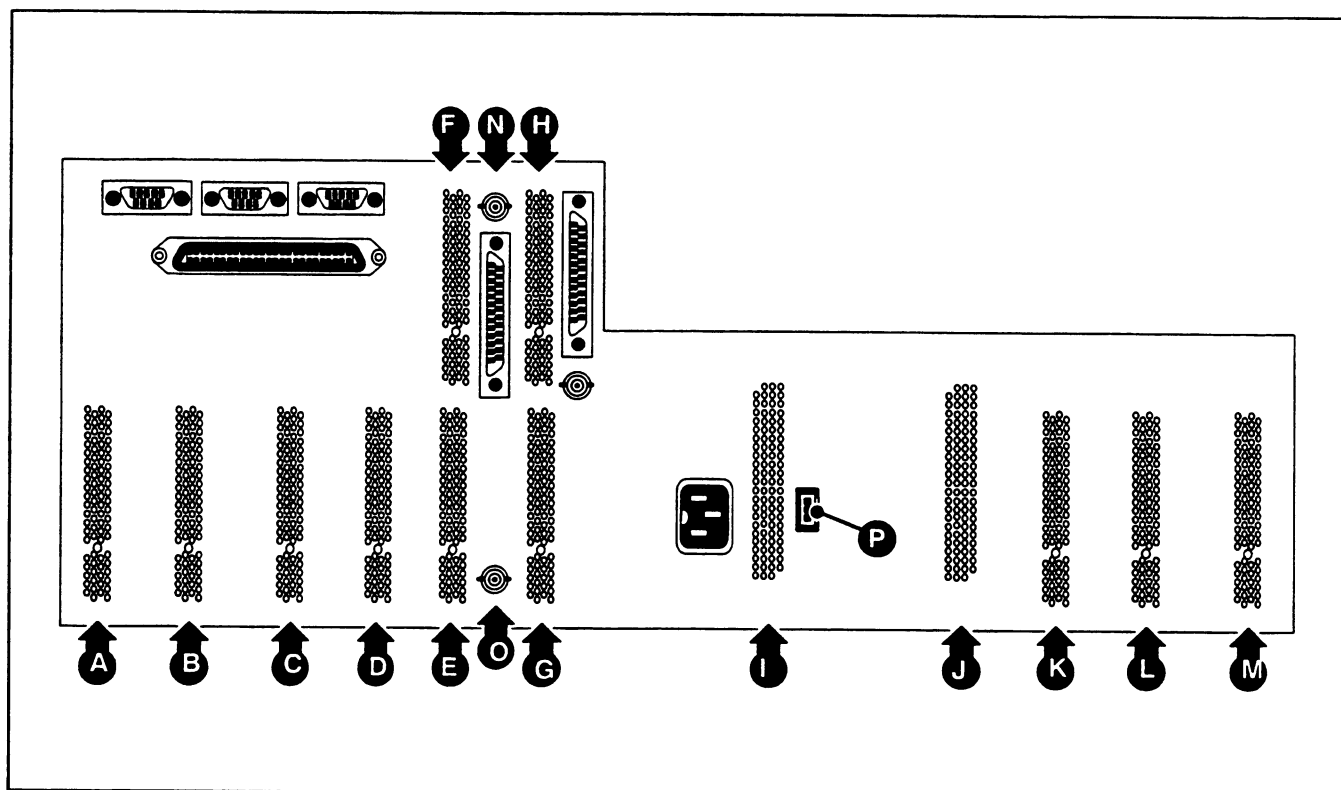


Figure 2. ASTRO—TAC Comparator Backplane Connectors

A J1 WIRELINE INTERFACE BOARD #5

Pin #	Signal Name
1	GND
2	GND
3	GND
4	GND
5	External Spare #1
6	External Spare #2
7	External Spare #3
8	External Spare #4
9	External Spare #5
10	External Spare #6
11	External Spare #7
12	External Spare #8
13	External Spare #9
14	External Spare #10
15	External Spare #11
16	External Spare #12
17	Rx WIDEBAND AUDIO
18	GND
19	GND
20	GND
21	GND
22	14.2V
23	14.2V
24	14.2V
25	14.2V
26	14.2V
27	5V
28	5V
29	5V
30	5V
31	5V
32	5V
33	5V
34	5V
35	GND
36	GND
37	SPIMISO
38	SPIMOSI
39	SPICLK
40	ALT_RESET
41	HDLC DATA
42	HDLC BUSY
43	HDLC CLK
44	TDM FRAME SYNC
45	TDM DATA
46	TDM CLOCK
47	SPARE #1
48	SPARE #2
49	SPARE #3
50	SPARE #4
51	SPARE #5
52	SPARE #6
53	A0 (CS1)
54	A1 (CS2)
55	OPEN
56	A5
57	GND
58	A4
59	GND
60	A3
61	OPEN
62	A2
63	GND
64	GND
65	RX 2.1 MHZ REF
66	TX 2.1 MHZ REF
67	GND
68	GND
69	TX WIDEBAND AUDIO
70	5 MHZ REF
71	GND
72	GND
73	GND
74	OPEN
75	OPEN
76	OPEN
77	OPEN
78	OPEN
79	GND
80	GND

B J2 WIRELINE INTERFACE BOARD #4

Pin #	Signal Name
1	GND
2	GND
3	GND
4	GND
5	External Spare #1
6	External Spare #2
7	External Spare #3
8	External Spare #4
9	External Spare #5
10	External Spare #6
11	External Spare #7
12	External Spare #8
13	External Spare #9
14	External Spare #10
15	External Spare #11
16	External Spare #12
17	Rx WIDEBAND AUDIO
18	GND
19	GND
20	GND
21	GND
22	14.2V
23	14.2V
24	14.2V
25	14.2V
26	14.2V
27	5V
28	5V
29	5V
30	5V
31	5V
32	5V
33	5V
34	5V
35	GND
36	GND
37	SPIMISO
38	SPIMOSI
39	SPICLK
40	ALT_RESET
41	HDLC DATA
42	HDLC BUSY
43	HDLC CLK
44	TDM FRAME SYNC
45	TDM DATA
46	TDM CLOCK
47	SPARE #1
48	SPARE #2
49	SPARE #3
50	SPARE #4
51	SPARE #5
52	SPARE #6
53	A0 (CS1)
54	A1 (CS2)
55	OPEN
56	A5
57	GND
58	A4
59	GND
60	A3
61	OPEN
62	A2
63	GND
64	GND
65	RX 2.1 MHZ REF
66	TX 2.1 MHZ REF
67	GND
68	GND
69	TX WIDEBAND AUDIO
70	5 MHZ REF
71	GND
72	GND
73	GND
74	OPEN
75	OPEN
76	OPEN
77	OPEN
78	OPEN
79	GND
80	GND

C J3 WIRELINE INTERFACE BOARD #3

Pin #	Signal Name
1	GND
2	GND
3	GND
4	GND
5	External Spare #1
6	External Spare #2
7	External Spare #3
8	External Spare #4
9	External Spare #5
10	External Spare #6
11	External Spare #7
12	External Spare #8
13	External Spare #9
14	External Spare #10
15	External Spare #11
16	External Spare #12
17	Rx WIDEBAND AUDIO
18	GND
19	GND
20	GND
21	GND
22	14.2V
23	14.2V
24	14.2V
25	14.2V
26	14.2V
27	5V
28	5V
29	5V
30	5V
31	5V
32	5V
33	5V
34	5V
35	GND
36	GND
37	SPIMISO
38	SPIMOSI
39	SPICLK
40	ALT_RESET
41	HDLC DATA
42	HDLC BUSY
43	HDLC CLK
44	TDM FRAME SYNC
45	TDM DATA
46	TDM CLOCK
47	SPARE #1
48	SPARE #2
49	SPARE #3
50	SPARE #4
51	SPARE #5
52	SPARE #6
53	A0 (CS1)
54	A1 (CS2)
55	OPEN
56	A5
57	GND
58	A4
59	GND
60	A3
61	OPEN
62	A2
63	GND
64	GND
65	RX 2.1 MHZ REF
66	TX 2.1 MHZ REF
67	GND
68	GND
69	TX WIDEBAND AUDIO
70	5 MHZ REF
71	GND
72	GND
73	GND
74	OPEN
75	OPEN
76	OPEN
77	OPEN
78	OPEN
79	GND
80	GND

D J4 WIRELINE INTERFACE BOARD #2

Pin #	Signal Name
1	GND
2	GND
3	GND
4	GND
5	External Spare #1
6	External Spare #2
7	External Spare #3
8	External Spare #4
9	External Spare #5
10	External Spare #6
11	External Spare #7
12	External Spare #8
13	External Spare #9
14	External Spare #10
15	External Spare #11
16	External Spare #12
17	Rx WIDEBAND AUDIO
18	GND
19	GND
20	GND
21	GND
22	14.2V
23	14.2V
24	14.2V
25	14.2V
26	14.2V
27	5V
28	5V
29	5V
30	5V
31	5V
32	5V
33	5V
34	5V
35	GND
36	GND
37	SPIMISO
38	SPIMOSI
39	SPICLK
40	ALT_RESET
41	HDLC DATA
42	HDLC BUSY
43	HDLC CLK
44	TDM FRAME SYNC
45	TDM DATA
46	TDM CLOCK
47	SPARE #1
48	SPARE #2
49	SPARE #3
50	SPARE #4
51	SPARE #5
52	SPARE #6
53	A0 (CS1)
54	A1 (CS2)
55	OPEN
56	A5
57	GND
58	A4
59	GND
60	A3
61	OPEN
62	A2
63	GND
64	GND
65	RX 2.1 MHZ REF
66	TX 2.1 MHZ REF
67	GND
68	GND
69	TX WIDEBAND AUDIO
70	5 MHZ REF
71	GND
72	GND
73	GND
74	OPEN
75	OPEN
76	OPEN
77	OPEN
78	OPEN
79	GND
80	GND

E J5 WIRELINE INTERFACE BOARD #1

Pin #	Signal Name
1	GND
2	GND
3	GND
4	GND
5	External Spare #1
6	External Spare #2
7	External Spare #3
8	External Spare #4
9	External Spare #5
10	External Spare #6
11	External Spare #7
12	External Spare #8
13	External Spare #9
14	External Spare #10
15	External Spare #11
16	External Spare #12
17	Rx WIDEBAND AUDIO
18	GND
19	GND
20	GND
21	GND
22	14.2V
23	14.2V
24	14.2V
25	14.2V
26	14.2V
27	5V
28	5V
29	5V
30	5V
31	5V
32	5V
33	5V
34	5V
35	GND
36	GND
37	SPIMISO
38	SPIMOSI
39	SPICLK
40	ALT_RESET
41	HDLC DATA
42	HDLC BUSY
43	HDLC CLK
44	TDM FRAME SYNC
45	TDM DATA
46	TDM CLOCK
47	SPARE #1
48	SPARE #2
49	SPARE #3
50	SPARE #4
51	SPARE #5
52	SPARE #6
53	A0 (CS1)
54	A1 (CS2)
55	OPEN
56	A5
57	GND
58	A4
59	GND
60	A3
61	OPEN
62	A2
63	GND
64	GND
65	RX 2.1 MHZ REF
66	TX 2.1 MHZ REF
67	GND
68	GND
69	TX WIDEBAND AUDIO
70	5 MHZ REF
71	GND
72	GND
73	GND
74	OPEN
75	OPEN
76	OPEN
77	OPEN
78	OPEN
79	GND
80	GND

F J6 WIRELINE INTERFACE BOARD #1

Pin #	Signal Name
1	GND
2	GND
3	GND
4	GND
5	External Spare #1
6	External Spare #2
7	External Spare #3
8	External Spare #4
9	External Spare #5
10	External Spare #6
11	External Spare #7
12	External Spare #8
13	External Spare #9
14	External Spare #10
15	External Spare #11
16	External Spare #12
17	Rx WIDEBAND AUDIO
18	GND
19	GND
20	GND
21	GND
22	14.2V
23	14.2V
24	14.2V
25	14.2V
26	14.2V
27	5V
28	5V
29	5V
30	5V
31	5V
32	5V
33	5V
34	5V
35	GND
36	GND
37	SPIMISO
38	SPIMOSI
39	SPICLK
40	ALT_RESET
41	HDLC DATA
42	HDLC BUSY
43	HDLC CLK
44	TDM FRAME SYNC
45	TDM DATA
46	TDM CLOCK
47	SPARE #1
48	SPARE #2
49	SPARE #3
50	SPARE #4
51	SPARE #5
52	SPARE #6
53	A0 (CS1)
54	A1 (CS2)
55	OPEN
56	A5
57	GND
58	A4
59	GND
60	A3
61	OPEN
62	A2
63	GND
64	GND
65	RX 2.1 MHZ REF
66	TX 2.1 MHZ REF
67	GND
68	GND
69	TX WIDEBAND AUDIO
70	5 MHZ REF
71	GND
72	GND
73	GND
74	OPEN
75	OPEN
76	OPEN
77	OPEN
78	OPEN
79	GND
80	GND

G J7 STATION CONTROL

Pin #	Signal Name
1	LINE 1+
2	LINE 1-
3	OPEN
4	OPEN
5	OPEN
6	OPEN
7	LINE 2+
8	LINE 2-
9	OPEN
10	OPEN
11	OPEN
12	OPEN
13	LINE 3+
14	LINE 3-
15	OPEN
16	OPEN
17	OPEN
18	OPEN
19	LINE 4+
20	LINE 4-
21	OPEN
22	OPEN
23	OPEN
24	OPEN
25	OPEN
26	Gen Tx Data +
27	PL-In
28	Aux Out 1 (Failsafe Ind)
29	Aux Out 2 (Rx Code Det)
30	Aux Out 3
31	Aux Out 4
32	Aux Out 5
33	Aux Out 6
34	Aux In 8
35	Aux Out 7-Relay
36	Aux Out 8-Relay
37	Aux Out 9-Relay
38	Gnd
39	Aux In 9-opto-
40	Aux Out 10-Relay
41	Aux In 11-opto-
42	Aux In 10-opto-
43	Aux In 12-opto+
44	Aux In 12-opto-
45	OPEN
46	Aux In 11-opto+
47	OPEN
48	Aux In 9-opto+ (Ext PTT)
49	Aux In 10-opto+
50	Aux Out 9-Relay
51	Aux Out 10-Relay
52	GND
53	GND
54	Aux In 8
55	OPEN
56	Aux In 4 (Rx In)
57	Aux Out 8-Relay
58	Aux In 2 (Tx Inhibit)
59	Aux In 7
60	Aux In 1 (Site Failsafe)
61	OPEN
62	PL+ In
63	Aux In 5
64	Gen Tx Data-
65	Aux In 3 (Ext Tx Code Det)
66	OPEN
67	OPEN
68	OPEN
69	External Spare #13
70	External Spare #14
71	GND
72	External Spare #15
73	External Spare #16
74	OPEN
75	OPEN
76	OPEN
77	OPEN
78	OPEN
79	GND
80	GND

H J8 STATION CONTROL

Pin #	Signal Name
1	FUNCTION
2	Modem +
3	Modem -
4	OPEN
5	OPEN
6	GND
7	GND
8	WFI+
9	WFI-
10	DLAN1+
11	DLAN1-
12	DLAN2+
13	DLAN2-GND
14	GND
15	PL Strip
16	AUX Indicate
17	Monitor
18	OPEN
19	OPEN
20	Patch INH
21	MRT1 PTT
22	MRT1 Rx Audio
23	MRT1 Audio
24	OPEN
25	Rx Carrier
26	GND
27	GND
28	GND
29	GND
30	GND
31	GND
32	Modem Rat
33	TxD3
34	RxD3
35	RTS3
36	CTS3
37	DSR3
38	GND
39	DCD3
40	Local loopback 3
41	TCLK3
42	RCLK3
43	DTR3
44	Remote Loopback 3
45	GND
46	GND
47	GND
48	GND
49	Ring Indicator
50	RxD1
51	TxD1
52	CTS1
53	RTS1
54	DCD1
55	GND
56	DSR1
57	DTR1
58	Serial ID
59	TSTAT
60	PTT
61	OPEN
62	MUTE
63	RSTAT
64	CCI
65	GND
66	GND
67	TX Data
68	Rx WIDEBAND AUDIO
69	TX DATA -
70	GND
71	GND
72	GND
73	GND
74	1PPS
75	GND
76	ETHERNET ISOLATED GND
77	GND
78	ETHERNET
79	GND
80	ETHERNET ISOLATED GND

J J39 +5V EXPANSION MODULE

Pin #	Signal Name
1	GND
2	GND
3	GND
4	14.2V
5	14.2V
6	14.2V
7	14.2V
8	14.2V
9	14.2V
10	14.2V
11	14.2V
12	GND
13	GND
14	GND
15	GND
16	GND
17	GND
18	GND
19	GND
20	5V
21	5V
22	5V
23	5V
24	5V
25	5V
26	5V
27	5V
28	GND
29	GND
30	GND
31	GND
32	OPEN
33	OPEN
34	OPEN
35	OPEN
36	OPEN
37	OPEN
38	OPEN
39	OPEN
40	OPEN
41	OPEN
42	GND
43	GND
44	GND
45	GND
46	GND
47	GND
48	GND
49	GND
50	GND
51	OPEN
52	OPEN
53	OPEN
54	OPEN
55	OPEN
56	OPEN
57	OPEN
58	OPEN
59	OPEN
60	SPARE #1
61	SPARE #2
62	SPARE #3
63	GND
64	GND
65	GND
66	OPEN
67	OPEN
68	GND
69	OPEN
70	OPEN
71	OPEN
72	GND
73	GND
74	GND
75	GND
76	GND
77	GND
78	GND

K J40 WIRELINE INTERFACE BOARD #8

Pin #	Signal Name
1	GND
2	GND
3	GND
4	GND
5	External Spare #1
6	External Spare #2
7	External Spare #3
8	External Spare #4
9	External Spare #5
10	External Spare #6
11	External Spare #7
12	External Spare #8
13	External Spare #9
14	External Spare #10
15	External Spare #11
16	External Spare #12
17	Rx WIDEBAND AUDIO
18	GND
19	GND
20	GND
21	GND
22	14.2V
23	14.2V
24	14.2V
25	14.2V
26	14.2V
27	5V
28	5V
29	5V
30	5V
31	5V
32	5V
33	5V
34	5V
35	GND
36	GND
37	SPIMISO
38	SPIMOSI
39	SPICLK
40	ALT_RESET
41	HDLC DATA
42	HDLC BUSY
43	HDLC CLK
44	TDM FRAME SYNC
45	TDM DATA
46	TDM CLOCK
47	SPARE #1
48	SPARE #2
49	SPARE #3
50	SPARE #4
51	SPARE #5
52	SPARE #6
53	A0 (CS1)
54	A1 (CS2)
55	OPEN
56	A5
57	GND
58	A4
59	GND
60	A3
61	OPEN
62	A2
63	GND
64	GND
65	RX 2.1 MHZ REF
66	TX 2.1 MHZ REF
67	GND
68	GND
69	TX WIDEBAND AUDIO
70	5 MHZ REF
71	GND
72	GND
73	GND
74	OPEN
75	OPEN
76	OPEN
77	OPEN
78	OPEN
79	GND
80	GND

L J41 WIRELINE INTERFACE BOARD #7

Pin #	Signal Name
1	GND
2	GND
3	GND
4	GND
5	External Spare #1
6	External Spare #2
7	External Spare #3
8	External Spare #4
9	External Spare #5
10	External Spare #6
11	External Spare #7
12	External Spare #8
13	External Spare #9
14	External Spare #10
15	External Spare #11
16	External Spare #12
17	Rx WIDEBAND AUDIO
18	GND
19	GND
20	GND
21	GND
22	14.2V
23	14.2V
24	14.2V
25	14.2V
26	14.2V
27	5V
28	5V
29	5V
30	5V
31	5V
32	5V
33	5V
34	5V
35	GND
36	GND
37	SPIMISO
38	SPIMOSI
39	SPICLK
40	ALT_RESET
41	HDLC DATA
42	HDLC BUSY
43	HDLC CLK
44	TDM FRAME SYNC
45	TDM DATA
46	TDM CLOCK
47	SPARE #1
48	SPARE #2
49	SPARE #3
50	SPARE #4
51	SPARE #5
52	SPARE #6
53	A0 (CS1)
54	A1 (CS2)
55	OPEN
56	A5
57	GND
58	A4
59	GND
60	A3
61	OPEN
62	A2
63	GND
64	GND
65	RX 2.1 MHZ REF
66	TX 2.1 MHZ REF
67	GND
68	GND
69	TX WIDEBAND AUDIO
70	5 MHZ REF
71	GND
72	GND
73	GND
74	OPEN
75	OPEN
76	OPEN
77	OPEN
78	OPEN
79	GND
80	GND

M J42 WIRELINE INTERFACE BOARD #6

Pin #	Signal Name
1	GND
2	GND
3	GND
4	GND
5	External Spare #1
6	External Spare #2
7	External Spare #3
8	External Spare #4
9	External Spare #5
10	External Spare #6
11	External Spare #7
12	External Spare #8
13	External Spare #9
14	External Spare #10
15	External Spare #11
16	External Spare #12
17	Rx WIDEBAND AUDIO
18	GND
19	GND
20	GND
21	GND
22	14.2V
23	14.2V
24	14.2V
25	14.2V
26	14.2V
27	5V
28	5V
29	5V
30	5V
31	5V
32	5V
33	5V
34	5V
35	GND
36	GND
37	SPIMISO
38	SPIMOSI
39	SPICLK
40	ALT_RESET
41	HDLC DATA
42	HDLC BUSY
43	HDLC CLK
44	TDM FRAME SYNC
45	TDM DATA
46	TDM CLOCK
47	SPARE #1
48	SPARE #2
49	SPARE #3
50	SPARE #4
51	SPARE #5
52	SPARE #6
53	A0 (CS1)
54	A1 (CS2)
55	OPEN
56	A5
57	GND
58	A4
59	GND
60	A3
61	OPEN
62	A2
63	GND
64	GND
65	RX 2.1 MHZ REF
66	TX 2.1 MHZ REF
67	GND
68	GND
69	TX WIDEBAND AUDIO
70	5 MHZ REF
71	GND
72	GND
73	GND
74	OPEN
75	OPEN
76	OPEN
77	OPEN
78	OPEN
79	GND
80	GND

N J21 1PPS INPUT

Pin #	Signal Name
1	1PPS
2	GND
3	GND
4	GND
5	GND

O J30 5 MHz REF INPUT

Pin #	Signal Name
1	5 MHz REF
2	GND
3	GND
4	GND
5	GND

P J24 BATTERY TEMPERATURE

Pin #	Signal Name
1	GND
2	BATTERY TEMP
3	GND